

# Mnesikles: the second architect on the Athenian Acropolis

**Estelle Alma Maré**

Research Fellow, Department of Architecture,  
Tswahne University of Technology, Pretoria  
E-mail: estelle\_marais@yahoo.com

**I dedicate this article to the memory of Athanasios Rapanos (died March 2008) with whom I discussed classical architecture for thirty-two years, and whose ideas are reflected herein.**

Mnesikles was a Classical Greek architect, active *circa* 440, whose life cannot be reconstructed in detail. He was the architect of the Propylaea on the Athenian Acropolis, while adjacent buildings there, the Erechtheum and the Temple of Athena Nikè, are attributed to him. What these three buildings have in common is their unprecedented design; especially the Erechtheum and the Propylaea violate the foremost rule of classical design by being asymmetrical. By contrast, the Parthenon as the main temple is a normative building on a monumental scale. Many reasons for their deviant appearance can be gathered from the extensive literature on all three. Whatever the influence of the vicissitudes of history or the irregular building sites may be, the real reason for the irregularity of the buildings auxiliary to the Parthenon should be sought in Mnesikles's purposeful design strategy. If the Propylaea, the Erechtheum and the Temple of Athena Nikè are "blemished" buildings, according to classical norms, one needs to ask if Mnesikles did not intend it that way. The ambiguities in the secondary buildings on the Acropolis may justifiably be interpreted as purposeful disorderliness, the secondary buildings acting as a foil to the symmetry and order of the main temple which is geometricised to the point of abstraction. It is proposed that Mnesikles designed the Propylaea and Erechtheum and the Temple of Athena Nikè not to rival the dominance and perfection of the Parthenon by consciously making them imperfect by incomplete architectural articulation, fragmentation, blemishing, and limiting of the scale.

## **Mnésiclès, deuxième architecte de l'Acropole athénienne**

Mnésiclès était un architecte de la Grèce classique, actif vers 440. Sa vie ne peut être reconstruite en détail. Il fut l'architecte des Propylées sur l'Acropole athénienne ; les constructions adjacentes, l'Erechthéon et le Temple d'Athéna Niké, lui sont attribuées. Ces trois bâtiments partagent une forme inédite : en particulier, par leur asymétrie, l'Erechthéon et Propylées contredisent la loi primordiale du dessin classique. En regard, le Parthénon, en tant que temple principal, est un bâtiment normatif à l'échelle monumentale. Dans la littérature sur les trois édifices, on trouve beaucoup d'explications concernant cette forme irrégulière. Quelle que soit l'influence des vicissitudes de l'histoire ou le rôle du caractère accidenté des lieux de construction, la véritable raison de l'irrégularité de ces bâtiments peut être vue dans un dessin volontairement mis en œuvre par Mnésiclès. Si les Propylées, l'Erechthéon et le temple d'Athéna Niké sont des bâtiments imparfaits selon les normes classiques, on peut s'interroger pour savoir si Mnésiclès ne les a pas souhaités ainsi. Les ambiguïtés observables dans les bâtiments secondaires de l'Acropole peuvent être interprétées avec raison comme volontaires, les bâtiments secondaires visant à détourner la symétrie et l'ordre du temple principal qui est géométrisé jusqu'à l'abstraction. Nous suggérons ici que Mnésiclès a dessiné les Propylées, l'Erechthéon et le temple d'Athéna Niké volontairement imparfaits pour ne pas rivaliser avec la domination et la perfection du Parthénon ; ainsi, une articulation architecturale incomplète, une fragmentation et une échelle limitée.

**M**nesikles was a classical Greek architect, active c. 440 BCE, whose life cannot be reconstructed in any detail.<sup>1</sup> He was the architect of the Propylaea on the Athenian Acropolis, whereas adjacent buildings there, the Erechtheum and the Temple of Athena Nikè, are also attributed to him. What these three buildings have in common is their unprecedented design in that they violate the foremost rule of classical architecture by being asymmetrical, thus forming a contrast with the Parthenon as a normative Doric temple on a monumental scale.

In order to understand the architectural contribution Mnesikles made to the perceptual totality of the temple complex on the Athenian Acropolis it is necessary to explain, firstly, the main propositions regarding classical Greek architecture, and secondly, the unique architectural layout of the Athenian Acropolis and its processional approach.

## **Propositions regarding classical architecture**

In classical Greek architecture temple complexes were purposely developed to form a perceptual totality, consciously using the approach environs to these temples to facilitate the experience of serial vision<sup>2</sup> and to heighten the viewer's awareness of the main temple in relation to ancillary buildings.

The layout follows a flexible but recognizable pattern. Generally, the main temple is on an elevated site, to be approached by a fixed route, the sacred or ceremonial way. Because of this layout it is postulated that classical architecture was not exclusively an architecture of three classical orders, but an architecture on two hierarchical levels, namely that of the divine level, as symbolised by the fully articulated Doric temple which is aligned with features of the earth, the horizon, with the sky as dramatic natural backdrop, as opposed to that of the secondary human level, as exemplified by the ancillary buildings in temple complexes or alongside the sacred way which are characterized by being smaller and by ambiguity in the sense of being imperfect, restless, of varied design and not oriented to a central axis. Accordingly, classical Greek architecture actualized an order of geometrical symmetry and a complementary random order, thus establishing a dialectic between order and disorder that creates a perceptual totality.

While various temple complexes, such as that of Apollo at Delphi, developed over many generations, the Athenian Acropolis adhered to the principles stated above, but manifested in a coherent building programme by architects who thoroughly understood the said principles.

### **The Athenian Acropolis and its processional approach**

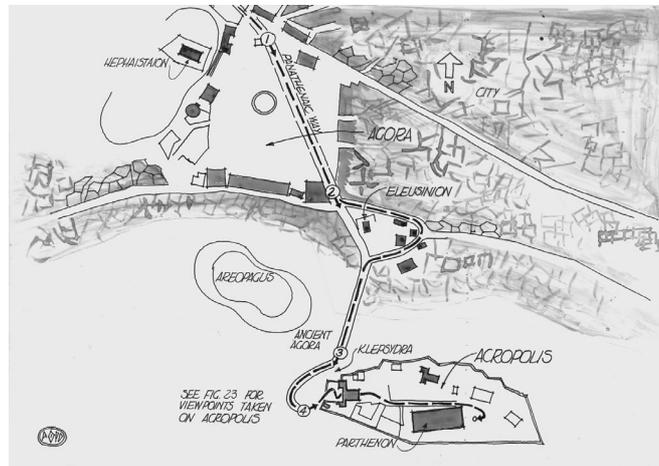
On the Athenian Acropolis the buildings under consideration are the main temple of Athena Parthenos, better known as the Parthenon, designed by Iktinos and Kallikrates (active mid 5<sup>th</sup> Century BCE) under the supervision of Pheidias (c. 490-430 BCE) who was appointed by Pericles (495-429 BCE), the Propylaea and two minor temples, designed by Mnesikles.

The Panathenaic procession started from the Dipylon Gate, cut across the Agora, ascended the eastern slope of the Acropolis, passed through the Propylaea, the ceremonial gate building, and proceeded past the statue of Athena Promachos to arrive finally at the altar at the east side of the Parthenon (figure 1). The winding Panathenaic Way was a gradual, indirect approach, which afforded the viewers many views of the Parthenon (447-432 BCE) as well as of the Propylaea and the other temples on the Acropolis.

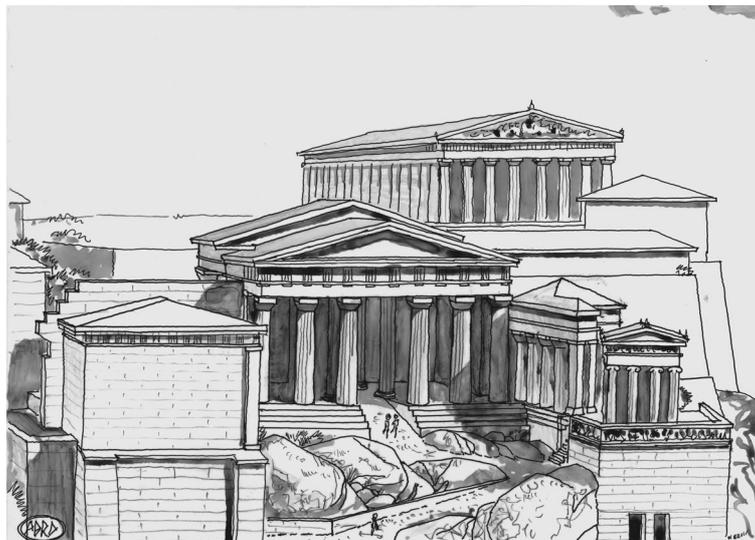
The Parthenon as the main temple is reached through the Propylaea (figure 2), a transitional building, forming the link between the processional way and the Acropolis. Adjacent to the main temple are the Propylaea, the Temple of Athena Nikè (figure 3), the Erechtheum (421-406 BCE, figure 4), as well as the tall statue of Athena Promachos, the altar on the east side, and the bronze workshops. These buildings and structures all belong to the main temple's perceptual and processional field of force and attraction. The layout of the approach and the surrounding structures create the effect of serial vision, culminating in the grandeur of the main temple: "Indeed the position and size of the Parthenon are comprehensible only when it is viewed in relation to the entire Panathenaic sequence."<sup>3</sup>

The Acropolis is set on a rocky outcrop which was reinforced and extended to some 320 x 127 metres by means of retaining walls during the middle of the fifth century BCE. From this "high city" the features of the surrounding natural environment are truly vast in relation to the limited size of the classical polis below. At the time of Pericles, after Athens had been laid in ruins by the Persians, the area of the Acropolis covered by buildings was smaller than had originally been intended.

The rebuilt Parthenon occupies the largest area on the Acropolis and is the dominant building there. The architectural treatment of this structure is completely different from that of the Propylaea and the two other temples constructed in the time of Pericles. The Propylaea, as rebuilt by Mnesikles, is not on a notably smaller scale than the Parthenon. By comparison, the Temple of Athena Nikè is constructed on a sculptural scale, like the treasuries at Delphi. The Erechtheum is of an intermediate scale, somewhere between the Temple of Athena Nikè and the Parthenon.



**Figure 1**  
**Site plan of the Athenian Acropolis.**  
**(Drawing by A. Rapanos)**



**Figure 2**  
**The Propylaea in relation to the Parthenon.**  
**(Drawing by A. Rapanos)**

Mnesikles placed the entrance of the Propylaea on the long axis of the Acropolis “from Salamis to Hymettos”.<sup>4</sup> This axis is within three degrees of being parallel to that of the Parthenon. However, this alignment cannot be observed by visitors entering from civic space below into the sacred space of the Acropolis by crossing the threshold demarcated by the Propylaea. Thus, fixed axes between buildings are not the determinants of the final design of the architectural complex on the Acropolis. Instead, the buildings are placed to come into the field of vision of visitors passing through the Propylaea. Thus Constantinos Doxiadis considers this layout as “An example of a perfect architectural synthesis based not on principles devised on the drafting board but on the movement of a man walking on the rock”.<sup>5</sup>



**Figure 3**  
**The Temple of Athena Nikè.**  
 (Drawing by A. Rapanos)



**Figure 4**  
**The Erechtheum.**  
 (Drawing by A. Rapanos)

There is a distinct perceptual relationship between the Propylaea, the Temple of Athena Nikè, the Erechtheum and the Parthenon even though an analysis of the planning reveals no geometrically precise orientation of these buildings in relation to each other. No building is oriented towards any of the main compass points; they are placed in a seemingly irregular relation to each other, and their sides are not immediately perceived as running parallel because of the differences of level between the Propylaea and the Parthenon (figure 2). Coherence is derived, rather, through serial vision. According to Vincent Scully the sense of spatial sequence on the Acropolis happens in “a series of jerks or revelations”,<sup>6</sup> not in a calculated, smooth way as in the case of a rigidly axial layout on a level site.

The main temple of Athena Parthenos relates to the sky, described by Scully as representing “an exterior, impenetrable presence, associated with the active forces of the male standing out

against the sky.”<sup>7</sup> The orientation of the other buildings is meaningful only in relation to the main temple. In no instance do they intrude on its dominance.

### **Mnesikles’s design strategy**

If the Propylaea, the Erechtheum and the Temple of Athena Nikè are “blemished” buildings, according to classical norms, one needs to ask if Mnesikles did not actually intend it that way. The ambiguities in the secondary buildings on the Acropolis may be justifiably interpreted as purposeful disorderliness, the secondary buildings acting as a foil to the symmetry and order of the main temple which is geometricised to the point of abstraction. It is proposed that Mnesikles designed buildings that do not rival the Parthenon.

No building on the Acropolis challenges the supremacy of the Parthenon. Not completely constructed of Pentellic marble like the Parthenon, but with details in Eleusian dark stone, only the gable ends of the Propylaea are Doric, hence the building as a whole cannot be described as Doric. The passage through its interior is lined with Ionic columns. The duality of orders in this building prefigures the visitors’ view of both the Doric Parthenon and the Ionic Erechtheum which will progressively come into his or her field of vision.

The Erechtheum features the Ionic order on two porches and caryatids on the third, which underlines its feminine presence. In this respect it does not oppose the main temple by its proximity, but complements, even enhances, the temple’s masculine and dominant presence.

The Temple of Athena Nikè, which is small and appropriately Ionic, would not have been in the direct field of vision of the visitor entering the Acropolis through the Propylaea. However, before the visitor entered the Propylaea, it would have been etched against the sky. Thus it served the purpose to raise an expectation of a greater visual reward to come — that of the Parthenon when singly etched against the sky.

The exterior of the Parthenon exemplifies the Doric order with all its component parts refined and finished off, complete with sculptural motifs on the pediments and metopes. From a distance it can be conceived as a unified whole silhouetted against the sky, while for a viewer standing on the Acropolis, it reveals all its compositional elements such as columns, architraves and pediments as complete in themselves and resolved within the unity of the whole. In contrast, compositional elements of the ancillary buildings are left unresolved. These buildings, notably the Propylaea and the Erechtheum, are incomplete in the sense that they are not symmetrical structures and are not fully articulated according to the rules of a classical order.

What are the reasons for the irregularity and atypical design of Mnesikles’s buildings? Many reasons for their deviant appearance can be gathered from the extensive literature on all three, citing factors such as the irregular sites on which they are placed and the probability that the Propylaea is unfinished and not according to Mnesikles’s intention.

Work on the Propylaea was started in 437 BCE and was halted in 432 BCE by the outbreak of the Peloponnesian War. Construction was later resumed, though not completed. To explain the irregularities of this building architectural historians usually resort to the explanations that cast the architect in the role of victim of circumstance. It is said that the south wing, opposite the Pinakothek, is smaller than intended because of difficulties impeding construction on a site flanking the outcrop of rock on which the Temple of Athena Nikè is placed. Furthermore, two symmetrical wings, of more impressive dimensions than the Pinakothek, remained unbuilt on the eastern side. Similarly, the open colonnade to be substituted for a west wall in the wing opposite the Pinakothek, which would have allowed free access to the bastion and Temple of Athena Nikè, was never built. The Ionic order in the central, covered porch and the exterior

Doric columns are complete in themselves, but owing to the combination of orders, both are effectively incomplete in the resolution of the building as a whole.

The approximate dates on which construction of the Erechtheum was started and completed are 421 BCE and 407 BCE. Although there are several theories postulating an intended extension of this building to the west, there is no substantive evidence either way and the architect's intentions certainly cannot be construed retrospectively.

Whatever the influence of the vicissitudes of history or the irregular building sites may be, the real reason for the irregularity of the buildings ancillary to the Parthenon should be sought in Mnesikles's purposeful design strategy. It is postulated here that these imperfections are not an omission, but compliant with the intentions of the architect.

As Doxiadis sees it, however, incompleteness is the architect's material expression of his conception of time, the fourth dimension that synthesises the other aspects of physical reality. Referring to the Acropolis, he lists several examples of incompleteness that imply a pending synthesis: "There are several elements in the Acropolis of Athens which prove that the architect deliberately left some of his buildings incomplete in order to give visual, material expression to his conception of time as the fourth element of the synthesis. Such is the case with the unfinished Erechtheum, which conveys the impression of the pending completion of the whole synthesis."<sup>8</sup>

The visual impression made by the Propylaea and the Erechtheum leaves considerable doubt about their completeness. No such doubt would have arisen in the visitor's mind about the Parthenon as the main temple. The difference between clear and "allusive design"<sup>9</sup> is evident in the architecture of the Acropolis. Only the main temple perfectly exemplifies the design criteria for the Doric order and it is much easier to point out the imperfections in the other buildings on the Acropolis than to explain the perfection of the Parthenon. The Acropolis site did not suggest a chaotic, restless layout, as in the case of Delphi's sacred way and different methods had to be applied to contrast the approach and the main temple in this late classical layout. Amongst the secondary buildings on the Acropolis are temples which could not all be built on the scale of treasuries. Therefore Mnesikles as the designer consciously employed different architectural techniques to juxtapose the divine order of the main temple with the imperfect, human order of the ancillary buildings.

Since no satisfactory explanation has been offered for the hierarchic and random orders that complement each other in the design of the Acropolis it is postulated that Mnesikles resorted to the use of more emphatic devices such as fragmentation and blemishing rather than the mere lack of complete articulation seen in the approach structures at Delphi.

"Fragmentation" here means the breaking up of a highly imageable<sup>1</sup> classical form of the building so that it is not perceived as a single powerful unity but rather an assemblage of elements with emphasis on its detail. Its presence is emphatically subservient to the dominant building (the Parthenon in the case of the Athenian Acropolis) which has, by contrast, a bold, clearly perceived presence. In this sense, fragmentation is a design technique in which parts of a building are made imperfect, not through chance, but as dictated by the architect.

"Blemishing" is a more inclusive type of imperfection, comprising fragmentation, irregularities, a lack of symmetry and incompleteness in the sense of incomplete architectural articulation, but not in the sense that a building was not executed according to the architect's plans. If these are intentional, blemishing is considered to be a rational design technique applied by the architect of the ancillary buildings on the Acropolis. Thus, blemishing, or rather purposeful blemishing of a building, includes fragmentation, causing the building's presence and form to be made consciously amorphous. Blemishing diminishes a building's overall

imageability by transgressing the rules of classical architectural typology. This emphasises its place in the hierarchical order and ensures that it does not detract from the bold perfection of the main temple.

Other cities in Greece had notable temples, but none has such an elaborate entrance portal as the Propylaea to a sacred complex. The way passes through a hexastyle Doric facade — the passage inside, between the inner and outer entrances, had a coffered ceiling, supported by handsome Ionic columns. The north-west wing contains a spacious picture gallery (the so-called Pinakothek). It is not sure that more side-wings for exhibition purposes were intended. Since only one exists, Franco Fausto proposes that this anomaly which causes the plan to be asymmetrical is the solution conceived by Mnesikles for the problem of better illumination of the interior, an explanation which may contain some truth.<sup>11</sup>

In response to various attempts, such as that by Franco, to explain the asymmetrical design of the Pinakothek, William Dinsmoor argues that by taking different decisions at some points in the execution of the design and construction Mnesikles could just as well, “have created a totally symmetrical scheme...”.<sup>12</sup> However, Jeffrey Hurwit does concede that the architect “may not ... have originally conceived of the complex as perfectly symmetrical,”<sup>13</sup> citing as the reason the irregularity of the site.

Singular among the many scholars whose attention has been attracted to the functional aspect of the Pinakothek is Pontus Hellström, who “imagines” the Periclean Propylaea “which were never built according to the plans [of Mnesikles], as a giant banqueting complex” with eastern halls which, if executed, would have afforded a more or less complete symmetry between the northern and southern parts, and would have given the gateway a more monumental elevation.<sup>2</sup> However, Hellström’s speculation can be easily refuted since Greeks who participated in public blood offerings were bound by the formula *ou phora* (not to be carried away) as decreed by Solon. Meat had to be consumed at the altar and not carried away.

Scholars have tried in vain for more than 100 years to come up with convincing reasons why the Mnesikleian Propylaea was originally planned to more a monumental scale than that in which it was executed, and how a more or less complete symmetry between northern and southern parts were originally planned for the complex.

It is here argued that Mnesikles obviously expressed the functionality of all the spaces that comprise the Propylaea, but that he did not focus on the symbolic aspects of interior and exterior, as in the case of a Doric temple. Instead, he achieved a virtuoso but ambiguous design, avoiding excess by resorting to the controls of blemishing. Even though the Doric order is used on the exterior, irregularities occur. For example, where the road passes through, the intercolumniation is wider than on the sides, and carries two triglyphs. The roofs of the inner and outer porches are on different levels so that the roof of the inner porch cuts into the base line of the pediment on the west side, a detail which was most probably conveniently out of sight, but, as J.J. Coulton observes: “The separate roofs given to the various elements also emphasise their individual form, so that the solid masses compete with the space they define.”<sup>15</sup> Also, the Pinakothek had a hipped roof, not finished off with pediments, as one would expect of a unit planned like a megaron. Furthermore, the metopes are not decorated. Finally, the Ionic columns in the interior are unprecedented in defining in a building with Doric facades a “public space” through which movement occurs. Since the function of this building is to define the approach to the main temple, it should not be analysed as a complete building in its own right.

J.A. Bundgaard offers an explanation for the anomalies in the design of the Propylaea, which, however, he himself declares unsatisfactory:

It is clear that Mnesicles has not treated the separate units of his building as parts of the whole, but has concentrated his attention on the unit: the single house, the single part of the house.

This is an attitude we do not expect to find in any architect, especially not in an architect working on such subtly harmonised complexes as the Doric forms of Mnesicles' building.<sup>16</sup>

Bundgaard correctly maintains that the architect did the unexpected in his design. However detailed Bundgaard's explanation of how Mnesikles concentrated on "the unit" in his building, he nevertheless fails to recognise the architect's main purpose regarding the perceptual totality of the architectural hierarchy on the Acropolis. Clearly, Mnesikles as the "second man"<sup>17</sup> on the site was wise enough to plan the Propylaea and its "Doric forms" as consciously blemished so as not to detract from the perfection of the Parthenon, since it is clear that his planning had begun long before the new Parthenon was completed.

A similar design strategy is applied in the Erechtheum, which is completely asymmetrical with irregular levels, and the interior spaces not related in a functional way. The irregularities of the site and the remains of a previous temple caused the architect to fragment the structure in a seemingly arbitrary way. The Ionic order is used on two of the three porches, which sets it aside as distinctly different from the main temple. Not being peripteral it is also distinctly different from the main temple, and the columns on the north porch are arranged according to the prostyle scheme, four in front and two set back, while the prostyle porch on the east side extends across the full width of the building. Caryatids are used on the third (south) porch. They endorse the feminine character of the Erechtheum, but structurally they are a negation of the clarity of the Greek system of trabeation. The present writer considers the use of caryatids as a lapse of taste and a structural blemish, because visually these figures are an unacceptable expression of load-bearing members. They are both structural and sculptural, hybrids. Greek sculpture was done in relief on buildings or free-standing, while the caryatids are free-standing sculptures of female figures that serve as load-bearing columns at the same time, thus creating a sense of ambiguity. This building has been fragmented purposely.

The Erechtheum depends for its effect on meticulous workmanship, as well as the elaboration and refinement of Ionic decorative forms, which are best seen at close range. Although the composite effect of its irregularities is interesting in its complexity, it is actually an unsatisfactory building that is in no sense a model of the perfection of its order, with the result, as noted by D.S. Robertson, that some of the details fell out of favour in the centuries following its construction. If it is evaluated as an entity without considering it as part of an architectural ensemble, as Robertson does, its imperfections may be blamed on religious demands. He infers that Mnesikles "despaired", which is totally ridiculous:

The architect, hampered, like Mnesikles, by religious demands, despaired of producing a harmonious whole. He concentrated interest upon detail, and elaborated ornament with a lavish profusion unknown since the sixth century.<sup>18</sup>

Concerning the Erechtheum opinions also differ. It is clearly the work of a genius if judged in context, as Bruce Allsopp maintains:

About the quality of the Erechtheum as architecture, I venture to disagree with the eminent authority who called it "an unsatisfactory building". I prefer to see it from the point of putting a building alongside the Parthenon, which was still only 10 years old. To have designed a mini-Parthenon in the Doric order would have been trite indeed, and I suggest that this juxtaposition of the small, exquisite, asymmetrical, highly-ornamented Ionic shrine to the ponderous, dignified mass of the Parthenon is one of the most successful relationships of two buildings which has ever been achieved.<sup>19</sup>

The above quotations contain two unsatisfactory attempts to account for what seems to be an otherwise inexplicable deviation from a classical architectural tradition. Robertson avers the architect consoled himself by elaborately ornamenting the Propylaea, while Allsopp more

correctly proposes that the architect's purpose with the Erechtheum was to avoid "triteness" since his building was meant to be in juxtaposition with the "ponderous mass" of the Parthenon.

The Propylaea and the Erechtheum naturally had to reflect their important functions, but their size could not undermine the visual dominance of the Parthenon. The architect had to find a way to design two fine buildings, much larger than the treasuries at Delphi, but to humble them to preserve the all-important hierarchy on the Acropolis where the status of the Parthenon is inviolable. For which purpose he invented "blemishing" as a design instrument.

The design characteristics that prevent the Propylaea from matching the grandeur of the newly finished Parthenon are as follows:

The building has been made asymmetrical. It has a symmetrical centre but this has been hemmed in by (or seemingly extends into) wings that branch into different tristyle-in-antis porches and end facades. The south wing is actually only a facade with its western anta transformed into a free-standing column, an ensemble which nevertheless gives "the illusion of perfect symmetry".<sup>20</sup> The north facade is bulky and blank with a hip roof, while the south facade is a colonnaded end, but shallow like a stage prop seen obliquely. Such a consciously applied design strategy based on the dynamic balance of volumes or intentional asymmetry has never been used in mainland Greek architecture, but is applied in the case of the Propylaea as a way of "spoiling" the building, a practice herein designated as "blemishing". It does not have an in-the-round sculptural presence, or the imageability of an elevated, free-standing temple. Its image is of a flat facade with two wings embracing a central court. They are, in fact, space enclosing arms that celebrate or make a shrine of the rocky floor — the bare bedrock of the Acropolis. Clearly, its hybrid style and reduction of imageability blemishes its perfection.

What adds to the incongruity of the design is the juxtaposition of the Doric and Ionic orders. In the interior, slender Ionic columns, 10,13 metres high, provide the greater height of the marble beams of the ceiling, however without competing with the dominant but lower Doric columns of the porticoes. Furthermore, the empty metopes contradict the elaborate Doric detailing of the structure but emphasise its utilitarian nature as an incomplete building. The Propylaea's message is clear: it has a blemished Doric style that conveys the message to the expectant viewer that full metopes and a complete Doric temple should be sought elsewhere.

Its function as a gate building is clearly articulated by the unusually wide central intercolumniation of 5,43 metres. However, in concise terms, the Propylaea consists of a building in which the arms hem in the hexastyle portion of the facade, preventing it from becoming a bold free-standing Doric temple. Its detailing is clearly different from that of a Doric temple and although it contains a Doric frieze over the central opening this element is built as two monolithic beams instead of the usual separate blocks of triglyphs and metopes. A further unique feature is the use of dark Eleusinian stone for certain details, both structural and aesthetic, in an otherwise completely white marble structure. Notwithstanding its monumental scale, complex composition and the superb craftsmanship of its ornamentation, the deliberate omissions and unprecedented features make the whole a building without a self-asserting presence that competes with that of the main temple. However, its profound purpose of spatially articulating the rocky forecourt is clear. Probably the finest example of an architectural/natural dialectic on the Acropolis is the Propylaea's forecourt with its rock floor. It seems, also, that in its awareness of space-time the design of this forecourt became the very basis for future Hellenistic architecture.

The Erechtheum is blemished in different ways. The drastically split levels across the centre of the building is willfully retained. One cannot conceive that this was a religious requirement, since it would be the first appearance of religious requirements interfering in this kind of detail

in the corpus of classical architecture (with a possible exception posed by the temple at Bassae). Thus, in the case of the Erechtheum blemishing is taken further than in the case of the Propylaea and fragmentation becomes a distinctive design instrument, as follows:

The drastic difference in level across the site is boldly expressed and incorporated into the building, fragmenting it into parts, with no attempt to soften or ease the effect of disunity. There is an almost irrational assembly of parts or “traditional” facades, as if a “normal” building had been cut up and reassembled wrongly. The parts are so “badly” composed that the totality remains a collection of fragments. Although this building is almost savagely fragmented, the total effect is eased (unlike the Propylaea) by the softer Ionic style and elegant detailing.

Besides, there is the incongruous caryatid porch, attached to the south facade without any discernable reason or function. Nevertheless, it has been placed asymmetrically as if there is some elaborate meaning behind the decision to do so. The meaning or function of this asymmetrical composition is, according to my hypothesis, the destruction of the idea of a complete building and the heightening of viewers’ awareness of the fragmentation of structural parts. Even the use of the caryatids is a type of fragmentation; it is as if these sculptures ended up in the wrong position and are performing the wrong function of structural support, contrary to what one would expect of free-standing figures around which space flows and into whose presence viewers may enter. However, once again their sculptural elegance and idealisation of the female figure hide their role of adding to the blemishing of the Erechtheum.

However fragmented the Erechtheum as a composed structure seems to be, when seen serially from the ceremonial route, its positioning gives it an elegant ambience and more than just a flash of interest in the sight of the visitor. This somewhat conceals the role of blemishing and fragmentation which viewers would have perceived as deviations from architectural rules. While traditions and expectations are defied by the diminishing of the powerful presence and imageability of a sacred building, the experience of the Erechtheum is not of ugliness. On the contrary, the visitor of classical times would be captivated by beautifully detailed ornamental novelties and somehow lose sight of the whole. However, the essence of ambiguity in architecture is indeed that, like the Erechtheum, a design should be flexible.

As the visitor passed through the Propylaea on his or her way to the main temple, this temple would have disappeared from view. Its axis in relation to the Propylaea is oblique, evoking a feeling of disorientation: is it part of the Acropolis or not? It seems to be more like one of the approach buildings at Delphi than an independent, fully articulated temple. It is a foil to the main temple, and remains compositionally and visually somewhat obscure in relation to the main temple.

On the Athenian Acropolis the whole second order in the hierarchy of the ensemble of buildings is encapsulated primarily by three buildings, the Temple of Athena Niké, the Propylaea and the Erechtheum, all of which were designed by one man — Mnesikles, who seems to have invented and applied blemishing as a design tool which then disappeared from architectural history. Assuming this to be so, the question arises: where did this architect find the ideas and forms which he used?

What Mnesikles seems to have done is to take the Delphi experience (or an unidentified architectural parallel), which stretches over a long distance in space and time towards the elevated Temple of Apollo, and recreated it in a compact form on the Acropolis, an area which is much reduced in time and space — but with much stronger visual effect. He took the fragments of buildings and building details, distilled and remaining in memory after having walked the length of the approach at (say) Delphi and made them into large and powerful collages when he had the opportunity in Athens. His control of highly individual and original forms and design strategies applied at the Propylaea and the Erechtheum are masterly and create gripping

visual contrasts. Comparatively speaking one might say the Propylaea is a cold sculptural form, making the Parthenon seem rich and alive as seen by the visitor almost immediately after entering the Acropolis. Conversely, the Erechtheum, which is smaller, obliquely placed, solid and sensuously ornamented by comparison, seems to make its columns of the Parthenon look austere beautiful, towering, powerful but also sheltering, physically and mentally as the visitor moves towards the altar and measures his or her own scale against the monumental main temple. More powerfully, it represents a divine shelter and a memorial to the dead of the battle of Marathon.<sup>50</sup> There can be no doubt that this main temple, which embodies a complete history of former Doric temples, is the first order building on the Acropolis. Undeniably, it is also classical culture's best monument.

In terms of rigour and consistent regularity of form — which were considered hallmarks of architectural perfection during the classical period — the most meaningful expression of the ensemble of buildings on the Acropolis is given to the main temple. The variety of plan forms in this layout reveals only one plan as ideal and perfect. In terms of Lynch's theory of "imageability"<sup>52</sup> the exceptional or extraordinary element in a group will be the most noticeable. Therefore, one may conclude that the Parthenon has high "imageability". It is not only the most prominent landmark of Athens, but during classical times it was a symbol of perfection and an embodiment of the spiritual qualities ascribed to the goddess Athena.

The question here is whether the three buildings on the Acropolis designed by Mnesikles help substantially to make the viewing of the Parthenon one of the world's unique architectural experiences. Clearly the answer is "yes", and that the above hypotheses regarding blemishing and fragmentation are persuasive to compel recognition of Mnesikles, the "second man" on the site of the Acropolis, as one of the greatest architects in history.

Finally the Acropolis, having a primary or first-order building and a whole body of self-conscious second-order buildings as a consistent design policy remains unique in architectural history. In terms of practical construction, the synthesis was achieved as follows: The hill of the Acropolis had to be modified by buttressing the sides and levelling parts of it to make it suitable for building purposes. This modification of the hill had already commenced with the arrival of stone-age settlers. In archaic times, a first temple dedicated to Athena was built in the form of a timber structure. Traces of the second temple, built of stone, remain in the foundations. Neither were the foundations of the archaic Propylaea removed when Mnesikles erected his classical structure, but parts were incorporated in the new edifice. In the case of the Erechtheum, the irregular site and the remains of previous structures demanded an irregular building, adapted to the site, but these were not the only reasons for the unusual design or even that its function also required it to provide for the cults of different gods and demi-gods within it.

## **Conclusion**

The ambiguity and complexity expressed in the relationship between the secondary buildings and the main temple on the Athenian Acropolis is attributable to Mnesikles's design strategy characterised by the use of the various architectural orders on varying scales, as well as deviations from the ideal of symmetry. These two techniques help to point up to the hierarchical importance of the different buildings. Further techniques utilised in this regard are incompleteness and fragmentation in the expression of classical elements in the Propylaea and the minor temples. The effects referred to are achieved with irregular proportions combined with inconsistencies between internal and external design, in contrast to the Parthenon which is a single, normative building on a monumental scale, meticulously completed and refined. The ambiguities in the approach equate to purposeful disorderliness, which is induced with a view to using the secondary buildings as a foil to the symmetry and order of the main temple which is geometricised to

the point of abstraction.<sup>3</sup> In other words, in both complexes, the architectural treatment of the secondary buildings is referential in the sense that they are intended to condition and enhance the visitor's response to and appreciation of the architectural design of the main temple. However, a complete and integrated experience of these two distinct parts is achieved through a synthesis of chaos and cosmos. The main temple on its own would certainly offer a spectator an aesthetic experience, but not the visual fulfilment of an extended experience of serial vision by a visitor who arrives at a destination that has been elusive until the moment of arrival; the approach by itself would be meaningless.

## Coda

If one needs to draw a lesson from the history of Greek classical architecture in general and the contribution of Mnesikles in particular it is that the subtleties of architectural group design as a perceptual totality has retained its fascination for well over two millennia. This fascination has been lost in contemporary urban contexts where individual buildings, designed by ambitious architects, compete for prominence without any coherent compositional relationship. It seems that in our times a self-effacing "second man" such as Mnesikles no longer has a purpose or status.

## Notes

A shorter version of this paper was read at the twenty-fifth international conference of the Society of Architectural Historians Australia and New Zealand, Deakin University, Geelong, Australia, 2-6 July 2008, under the title, "Mnesikles: not a neglected, but a misunderstood architect".

1. For an overview of Mnesikles's career, see Yegül (1982: 211-22).
2. See Cullen (1961: 9).
3. Bacon (1967: 53).
4. Scully (1962: 182).
5. Doxiadis (1963: 138).
6. Cullen (1961: 9).
7. Scully (1962: 176).
8. Doxiadis (1963: 139).
9. A term used by Rapoport and Hawkes (1970: 106).
10. Lynch (1960: 9-10) defines "imageability" as "that quality in a physical object which gives it a high probability of evoking a strong image in any given observer. It is that shape, color, or arrangement

which facilitates the making of vividly identified, powerfully structured, highly useful mental images of the environment. It might also be called *legibility*, or perhaps *visibility* in a heightened sense, where objects are not only able to be seen, but are presented sharply and intensely to the senses." (Author's emphasis)

11. Franco (1930-1931: 10).
12. Dinsmoor (1982: 33).
13. Hurwit (1999: 193-94).
14. Hellström (1988: 120).
15. Coulton (1977: 121-22).
16. Bundgaard (1957: 66).
17. The "principle of the second man" is formulated by Bacon (1967: 94) as the man [architect] "who [in a group design] determines whether the creation of the first man [architect] will be carried forward or destroyed".
18. Robertson (1943: 135).
19. Allsopp (1970: 15 and 17).
20. This observation is by Marx (1993: 587).
21. See Maré and Rapanos (2007)

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Estelle Alma Maré obtained doctoral degrees in Literature, Architecture, Art History and a master's degree in Town and Regional Planning. She practiced as an architect from 1975-1980 when she joined the Department of Art History at the University of South Africa. As an academic she published widely in the field of art and architectural history, aesthetics, literary subjects and cartography. She has edited various books, proceedings and accredited journals and is the present editor of the *SA Journal of Art History*. She received various awards from the University of South Africa and the National Research Foundation. The most prestigious award was a bursary from the Onassis Foundation for Hellenic Studies, Category A1, in 2001. In 2002 she was awarded an exchange scholarship by the French National Research Institute and in 2003 the Stals Prize for Art History by the South African Academy for Arts and Science.